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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------------------------------------------------|-------------|----------------------|-----------------------------|------------------|
| 10/082,518 | 02/22/2002 | L. James Hwang | X-1002 US | 5974 |
| 24309 | 7590 | 09/10/2004 | EXAMINER WHITMORE, STACY | |
| XILINX, INC ATTN: LEGAL DEPARTMENT 2100 LOGIC DR SAN JOSE, CA 95124 | | | ART UNIT 2812 | PAPER NUMBER |

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/082,518 | Applicant(s) HWANG ET AL. | |
| | Examiner Stacy A Whitmore | Art Unit 2812 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>6/04, 7/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-3, and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartman (US Patent 6,096,091) in view of Huppenthal (US Patent 6,247,110)

3. As for claims 1 and 7, Hartmann disclosed the invention as claimed, including a method (and machine readable storage having instruction thereon for implementing the method) for customization of a Fpga-based SoC [col. 4, lines 7-12], the method comprising:

selecting a system component used for customizing the Fpga -based SoC [col. 4, lines 57-67; fig. 2, elements 110 are system components of element 110 – integrated circuit]; configuring said selected system component with parameters for use with the Fpga -based SoC [col. 4, lines 7-12, 57-67];

propagating said parameters used to configure said selected system component to peer system components [col. 4, lines 23-28, 34-40; col. 5, lines 28-51; fig. 2 elements 110, and 120; cited portions of cols. 4 and 5 show that the system components 110 of fig. 2 propagate configurations to the next element 110]; and

configuring said peer system components using said propagated parameters during customization of the Fpga-based SoC [col. 5, lines 28-43, col. 4, lines 23-28, 34-40; col. 5, lines 28-51; fig. 2 elements 110, and 120; cited portions of cols. 4 and 5 show that the system components 110 of fig. 2 propagate configurations to the next element 110; the peer system components are the elements 110 of fig. 2 which are customized by the configurations].

Hartman does not disclose selected system component sending said parameters and configuring using said sent parameters.

Huppenthal discloses selected system component sending said parameters and configuring using said sent parameters [abstract;] col. 2, lines 12-35; col. 4, lines 8-35, and 56-58].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hartman and Huppenthal because using Huppenthal's system to send parameters from the selected system component in order to send configuration information from component to component would improve Hartman's system by eliminating the need for buffers and for internal routing resources which would improve processing of tasks faster [see Huppenthal, col. 4, lines 25-35, and 55-58].

4. As for claims 2 and 8, Hartmann further disclosed configuring the selected system component with parameters used to configure said peer system component [col. 5, lines 28-43].

5. As for claims 3 and 9, Hartmann further disclosed propagating said parameter used to configure said peer system component to subsequently selected system components used to configure the Fpga -based SoC [col. 5, lines 28-43].

6. As for claim 6, Hartmann further disclosed wherein the method further comprises the step of initializing only the selected system components that are utilized for customizing the FPGA-based SoC [col. 4, lines 23-28].

7. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over (Hartmann (US Patent 6,096,091) in view of Huppenthal (US Patent), and further in view of Cooke et al. (US Patent 5,970,254).

8. As for claims 4 and 5, Hartmann in view of Huppenthal disclosed the invention substantially as claimed, including the method of customizing an FPGA-based SoC, as cited in the rejection of claim 1 above.

Hartmann in view of Huppenthal did not specifically disclose wherein said selecting step further comprises [claim 4] the step of providing an option for selecting an implementation selected from the group consisting of a hardware implementation and a software implementation, and [claim 5] The method according to claim 1, wherein said step of selecting said system component further comprises selecting a system component from the group consisting of a hardware core and a software core.

Cooke disclosed selection of software and hardware implementations within an FPGA design system [col. 2, lines 1-12].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disclosures of Hartmann in view of Huppenthal and Cooke because adding the selection of hardware and software implementations into the Hartmann in view of Huppenthal system would have improve Hartman in view of Huppenthal's system by providing customers with the advantages of both software and hardware solutions [see Cooke, col. 2, lines 1-12].

9. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

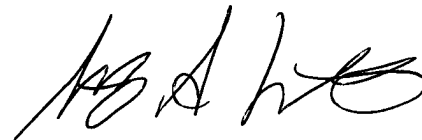
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A Whitmore whose telephone number is (571) 272-1685. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling can be reached on (571) 272-1679. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stacy A Whitmore
Primary Examiner
Art Unit 2812

SAW

A handwritten signature in black ink, appearing to read 'Stacy A. Whitmore', with a stylized, cursive script.